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BY ECF & EMAIL

The Honorable John G. Koeltl
United States District Judge
Southern District of New York
500 Pearl Street
New York, New York 10007

**Re: *United States v. HDR Global Trading Ltd., a/k/a “BitMEX,”*
24 Cr. 424 (JGK)**

Dear Judge Koeltl:

The Government respectfully submits this letter to reply to certain arguments about the gain from the offense raised for the first time in the reply sentencing submission filed by the defendant, HDR Global Trading Ltd., a/k/a “BitMEX” (“BitMEX” or the “Company”), on September 25, 2024 (Dkt. 22, “Def. Reply Mem.”). Before the Company filed its initial sentencing submission, the Government had submitted its proposed calculation for the gain from the offense to the Probation Office, and the Probation Office had accepted that calculation in its first draft of the PSR. But the Company’s opening submission did not make any arguments against the calculation that the gain was \$128 million. Instead, the Company simply asserted that the number—which, as explained below, was based on information supplied by the Company—was “unsupported,” without explanation. (Dkt. 15 at 19).

For the first time in reply, the Company makes several arguments regarding the Government’s proposed methodology for calculating the gain from the offense. These were arguments that the Company could and should have raised in its initial submission as it was already aware from the PSR as to these calculations and the bases behind them. Accordingly, the Government is filing this short surreply because this is its first opportunity to respond to the new arguments that BitMEX raised for the first time in its reply submission.

For the reasons explained below, those arguments are meritless and the Court should adopt the Government’s proposed number for the gain from the offense, which is the first step for calculating the United States Sentencing Guidelines range for this case. If, however, the Court determines that it needs more information to calculate the Guidelines range, the Government respectfully submits that the Court should adjourn the sentencing and schedule a *Fatico* hearing. At a hearing, the Government would present witness testimony analyzing data from the Company, data obtained from other sources that has already been produced to the Company, and public blockchain data, to demonstrate that the gain to the Company was at least \$128 million, and in all likelihood was substantially higher.

By way of background, the Government's opening submission explained that a conservative estimate of the gain to the Company from the offense is \$128 million, based on Company spreadsheets showing that its percentage of U.S. users was 9.51%. This is a lower number than what the Government had estimated based on its own investigation, but the Government proposed to use this number as a conservative estimate because it was derived solely from the Company's own data. In its reply submission, the Company states that the "government appears to have simply summed the three spreadsheets to arrive at its estimate of 9.51% apparent U.S. users who ever traded." (Def. Reply Mem. 11). But as the Company well knows, the Company originally proposed this methodology to estimate U.S. users. Specifically, in response to an inquiry from the Government about what the Company's data showed about U.S. users, the Company's counsel, in a letter dated September 26, 2022, identified these three spreadsheets and informed the Government that based on the spreadsheets, 9.51% of the Company's users who traded on the platform were attributable to the United States.

Now, for the first time in its reply submission, the Company has argued that this number should not be used to estimate the percentage of users who are attributable to the U.S., and argues that it does not need to propose any methodology of its own because the Government bears the burden of proving the gain. (Def. Reply Mem. 6). To be sure, the Government does bear the burden on this issue, but the Second Circuit has recognized that sentencing courts "can, and frequently do, deal with rough estimates." *United States v. Kumar*, 617 F.3d 612, 632 (2d Cir. 2010) (quoting *United States v. Rostoff*, 53 F.3d 398, 407 (1st Cir. 1995)). The Second Circuit has specifically recognized that when, as here, the evidence pertaining to such a Guidelines calculation is "limited," a reasonable method is to multiply a company's revenues by a rough estimate of the percentage of those revenues connected to the offense. *United States v. Moseley*, 980 F.3d 9, 29 (2d Cir. 2020); see also *United States v. Rainford*, 110 F.4th 455, 476 (2d Cir. 2024) ("We have held that a sentencing court's methodology was not 'too crude' when it calculated a loss amount based on two factors: the total profits of the scheme and testimony as to the underlying percentage that was fraudulent.").

Moreover, once the Government has "articulat[ed] a sound basis for approximation," it is appropriate for the sentencing court to inquire whether the defendant can "refute this showing." *United States v. Gushlak*, 728 F.3d 184, 202 n.15 (2d Cir. 2013). Even when the Government's proposed methodology is based simply on a witness's "estimates," the Second Circuit has affirmed a Guidelines calculation where the defendant "did not produce any evidence contradicting" those estimates. *United States v. Germosen*, 139 F.3d 120, 129 (2d Cir. 1998). This reasoning is especially applicable here, where the Company has pointedly declined to provide any contradictory evidence or methodology. Under the circumstances of this case, it is appropriate for the Court to make a "rough estimate" of the gain from the offense, *Kumar*, 617 F.3d at 632, and to do so based on the Company's own data showing the percentage of users attributable to the United States.

In considering this issue, one fact is especially important: the Company publicly claimed throughout the charged time period that it did not allow U.S. users, and also announced on its website and elsewhere that customers could not trade on BitMEX using U.S. IP addresses. This means that U.S. users had a strong incentive to access BitMEX using a VPN or through Tor, both of which obscure the customer's location. Thus, it is reasonable to infer that the Company's user tables would only capture a portion of the U.S. users, and likely a small portion. This is because

U.S. users had every reason to use a VPN or Tor and, in the absence of any KYC procedures, such users would not be recorded in the Company's figures as being from the U.S.¹ In addition, the Company actively encouraged users to evade its sham controls. For instance, in September 2015, around the same time that the Company announced that U.S. users were not allowed on the platform, it also launched what it called a "hidden service" on Tor. Founder Samuel Reed publicly advertised the Tor launch as allowing customers to stay "anonymous," saying that "BitMEX is one of a few Bitcoin services that does not require advanced verification from its users." ("BitMEX Launches on Tor," attached hereto as Exhibit A). Thus, not only did the Company know that its controls on U.S. users were ineffective, but it took steps to facilitate and advertise a means of access to its trading platform that deliberately evaded those controls. In light of this, the fact that the Company's own user data still shows that nearly ten percent of its users are attributable to the U.S. is a startling indication of just how egregious and pervasive the Company's lawbreaking really was.

In its reply submission, the Company mounts several arguments in an attempt to cast doubt on the clear implication of this data. None of those arguments are persuasive. First, the Company claims that "false positives abound." (Def. Reply Mem. 12). But as evidence of this, it cites just ten examples out of the 48,493 trading users identified in the three spreadsheets, an error rate of approximately 1 in 5,000. Even if the Company had identified 100 false positives, that would still indicate that the spreadsheets are 99.8% accurate. Moreover, four of the examples it provides are examples of users from China who logged in with a U.S. VPN. (Def. Reply Mem. 13). The Company attempts to argue that these four examples somehow show that there were "large volumes" of such users. But a VPN allows a user to select the country the user appears to be logging in from, and it makes little sense that "large volumes" of users would have selected the U.S., given BitMEX's public claims that it did not allow access from the U.S. By contrast, based on the facts of this case, it makes perfect sense that substantial numbers of U.S. users would use a VPN to access BitMEX. Thus, the logical inference from BitMEX's failure either to conduct KYC or to screen for VPNs is that this enabled more U.S. users to use the platform undetected than it enabled users from other countries to use the platform with a U.S. IP address.

The Company's next argument is to claim that the prominence on its platform of U.S. crypto trading firms somehow should not be considered because it required these firms to "attest in writing" that the trading was done from outside the U.S. (Def. Reply Mem. 14). But there is abundant evidence that the Company was fully aware that the attestations were inaccurate and that these firms were in fact trading from the U.S. For example, in October 2018, Founder Benjamin Delo wrote they were still not enforcing U.S. IP bans "due to U.S. traders of offshore non-U.S. corporations," an allusion to the prevalence of these trading firms that purported to be "offshore" while in fact trading from within the U.S. (BMX-PROD-10152763, attached hereto as Exhibit B). In December 2018, a BitMEX employee had a call with Sam Bankman-Fried, then-CEO of

¹ The Government obtained and produced to the Company in discovery data from other cryptocurrency exchanges that supports this, showing that thousands of users who were KYC'ed on other cryptocurrency exchanges as being from the U.S. also had BitMEX accounts. If the Court determines that a *Fatico* hearing is warranted, the Government will rely on this information, as well as other information, to demonstrate why the gain to the Company is very likely higher than 9.51%.

Alameda Research, one of the highest-volume crypto trading firms at the time, who told the BitMEX employee that he was “very appreciative we took care of their US log-in ban this week so quickly,” indicating that BitMEX had knowingly enabled Alameda traders to get around the purported ban on US logins. (BMX-PROD-10327392, attached hereto as Exhibit C). Also in 2018, Founder Samuel Reed stepped in to instruct a BitMEX employee to unban the IP address for a prominent New York-based trading firm. (BMX-PROD-00005956, attached hereto as Exhibit D). These examples illustrate that the Company regularly and knowingly facilitated U.S.-based trading by high-volume crypto trading firms, and that the “attestations” it points to were known to the Company to be false.

Perhaps aware that the evidence undermines its claims that it could have reasonably thought these trading firms were not operating in the U.S., the Company next argues that these trading firms were market makers who provided liquidity to the platform and thus frequently did not pay fees for their trading. (Def. Reply Mem. 15). But the Company provides no evidence of this. In any event, if these firms were in fact market makers, that would weigh in favor of a much higher estimate for the gain to the Company from the offense. Market makers are an essential component of a successful exchange, providing the necessary liquidity and price stability that induces other traders to use the exchange. Essentially, the Company is admitting that these U.S.-based firms were essential to its ability to operate a successful exchange that was attractive to retail traders.

Finally, the Company challenges the relevance of its internal reports from 2017 showing that the U.S. was the biggest source of visitors and active users (*i.e.*, traders) at the time. (Def. Reply Mem. 16). The report plainly states that the U.S. was generating 16% of visits to the website in May 2017, and that this was actually down from 22% of traffic in the first quarter of that year. (Esseks Decl., Dkt. 23, Ex. A, at BMX-SDNY-10329181). The Company’s reply submission argues that because the report shows an average of 277 active users from the U.S. per day in May 2017, and a total number of active users for the month of 10,442, this means that only 2.6% of users were from the U.S. (Def. Reply Mem. 16). That is plainly wrong, however, because the Company is trying to compare a daily rate to a monthly total. For example, if each U.S. user visited the website just once a month, then 277 users per day would be over 8,000 users per month, or 80% of the total number of users. More realistically, if each U.S. user visited five times a month, then 277 users per day would work out to around 1,717 total active U.S. users for the month, or slightly more than 16% of the Company’s total.² That estimate is consistent with the report, which says on the very same page that U.S. users also made up 16% of the total traffic to the website. (Esseks Decl. Ex. A, at BMX-SDNY-10329181). The Company’s argument to the contrary rests on misrepresenting its own report.

Thus, to calculate the Guidelines range in this case, a conservative estimate would take 9.51% of the Company’s revenues from the charged time period as the gain from the offense. However, to the extent that the Court determines that it would like to hear additional evidence on

² If there were 1,717 active users from the U.S., and each visited five times per month, that would be 8,585 visits from the U.S. per month. In a 31-day month, that would be an average of 277 active user visits per day from the U.S., which is the average daily number in the Company’s report.

this issue, the Government requests that the Court schedule a *Fatico* hearing with enough time for the parties to prepare to present witness testimony on this topic.

Respectfully submitted,

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